

# **ANNUAL STRATEGIC PLAN for Energy Conservation and Resource Use**

**Fiscal Year 2011-2012**

*(Revised annually since 1999)*

## **Mission**

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Implement a program that effectively manages Ada County government's consumption of natural resources and disposal of wastes to enhance the integrity of the environment.

## **Vision**

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Over the next year and into the future, Ada County will use cost-effective strategies to meet the demands of increasing population and higher energy costs. Ada County will continue to develop creative methods for controlling utility costs to save tax dollars and to make energy and resource efficiency a cost-effective part of day-to-day business.

## **Strategic Initiative**

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The Ada County Energy Plan provides elected officials and department heads with valuable energy and resource consumption data about their facilities, recycling programs, and waste disposal activities. Ada County formed the "Energy Plan Partnership" to include not only County personnel, but business partners such as utility representatives, architects, engineers and other local professionals who provide additional input from their unique perspectives to ensure a more comprehensive approach to the plan. A five-year action plan establishes the County's goals and objectives to identify cost-effective, economically sustainable energy and resource efficiency priorities for all Ada County facilities.

## **Philosophy**

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We believe that wisely using resources in public buildings will reduce utility bills while creating a healthy indoor environment for the building's occupants and visitors. We also believe that energy-efficient building design and construction practices, countywide recycling programs, and the proper disposal of waste within the County will improve the community's environment.

A healthy environment in Ada County is directly related to the efficient use of natural resources via energy-efficient building design and construction, responsible operating practices, and the proper disposal of waste within the County. The Energy Plan Partnership consolidates Ada County's commitment to the environment and provides for public participation in the process.

## Issues and Challenges

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Following are major issues and challenges affecting the organization, now and in the future.  
(Not prioritized)

1. Increasing utility costs and reduced dollars available for building projects and programs.
2. Money spent on energy doesn't impact the local economy as much as overall savings.
3. As building systems age, operational costs increase.
4. Population growth creates greater demands on facilities and increased maintenance costs.
5. Certain upgrades and equipment change-outs require advanced personnel training.

## General Five-Year Goals

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These represent broad accomplishments the organization would like to achieve over the next several years. (Not in priority order)

1. Limit, control, and lower utility costs.
2. Limit, control, and lower resource use through recycling.
3. Increase employee involvement in conserving energy and natural resources.
4. Upgrade building systems with energy efficient equipment.
5. Uphold high maintenance standards.
6. Increase the number of facilities with comprehensive, preventive maintenance programs.
7. Increase the overall comfort and productivity of staff.
8. Increase the County's recycling programs in facilities and at the Ada County Landfill.
9. Increase employee involvement in recycling.

## Overall Objectives

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- Promote and facilitate the Ada County Energy Plan Partnership.
- Ensure that conservation and responsible resource use remains a priority for Ada County.
- Provide administration and oversight to quantify benefits and savings of energy conservation projects at all County facilities.
- Provide data tracking and continuous commissioning associated with the operation and occupancy of all County facilities.
- Provide support and technical assistance to the enterprise funds' staff and facilities within the Solid Waste Management and Parks and Waterways departments.
- Support Idaho's Chapter of the US Green Building Council and provide oversight for all County LEED projects.

## Highlights and Major Accomplishments for FY 10-11

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1. Built new Paramedics Administration & Training Facility with Vehicle Shop
  - Integrated LEED standards into the owner's criteria for the project
  - Recycled construction waste including wood, gypsum, and metal
  - Commissioned the mechanical and electrical systems to ensure they operate correctly
  - Developed Indoor Air Quality Plan to protect the health of the building occupants
  - On track to receive LEED Silver certification from the US Green Building Council
2. Spent over 75% of the \$433,500 Energy Efficiency and Conservation Block Grant
  - Developed RFP and hired contractor to install 11 KW PV system at Barber Park
  - Net-metered at residential rate
  - Educational kiosk to provide information about the system
3. Earned \$12,232 in Idaho Power Building Efficiency and Easy Upgrades incentives
  - Paramedics Administration facility earned incentives for efficient lighting, HVAC, roofing, windows, and building controls
  - Expo Idaho RV Park earned incentives for efficient lighting and HVAC in the Laundry/Shower building
4. Tracked energy production and revenue from renewable energy projects
  - Generated over 23,000,000 kWh in 2010 from the Landfill Gas-to Energy Project
  - Earned \$215,268 in 2010 from the sale of methane gas and \$60,022 from green tags
  - Collected \$36,209 from ENEL for annual lease of Barber Dam (generates @ 4.1 MW)
5. Installed scales at the landfill to help quantify and report greenhouse gases to EPA
  - Diverted and recycled 3,000 refrigeration units, 5,000 tires, and 15,000 tons of wood waste at the landfill
  - Collected and recycled over 1,000,000 pounds of Household Hazardous Waste

## Goals for FY 11-12

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1. Complete the Jail Pod D Expansion Project
  - Specifications to meet sustainable high performance building standards
  - Implement a comprehensive building commissioning program
2. Complete the Weed and Pest Control Expansion Project
  - Specifications to meet sustainable high performance building standards
  - Implement a comprehensive building commissioning program
3. Building Upgrades
  - Purchase and install DDC HVAC controls for Paramedics Administration Building
  - Purchase and install 2 energy efficient rooftop HVAC units at FACES
  - Replace 2 Jail Kitchen make-up air units with new energy efficient units
  - Purchase and install 2 energy efficient replacement water heaters in Pod B of the Jail
  - Replace 2 rooftop HVAC units on Work Release with energy efficient equipment
4. Provide building operator training to Maintenance Mechanics

## 2011-2012 Objectives and Actions

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### ADMINISTRATIVE GOALS

1. Promote sustainability and expand Ada County's Energy Plan Partnership.
  - Mentor other organizations to develop energy plans.
  - Proactively promote public image and community sponsorships.
  - Meet with all elected officials and department heads to set "green" goals.
2. Promote sustainability within all county departments.
  - Facilitate energy code meetings and training classes for state and private sector.
  - Support and attend the annual Idaho Energy and Green Building Conference.
3. Serve the Public Good.
  - Building and operating green buildings promotes responsible use of taxpayer dollars and improves markets for environmentally friendly products and practices.
4. Support the US Green Building Council (USGBC) and LEED programs.
  - Be an advocate for the US Green Building Council.
  - Have LEED Accredited Professional on staff.
  - Provide information and case studies about all County LEED projects to the public as requested.
  - Support local USGBC Idaho Chapter programs.
5. Track Ada County's ecological footprint and emissions inventory.
  - Inventory and monitor greenhouse gas emissions from building energy use, transportation fuel use, and waste generation for emissions inventory.
  - Quantify offsets from alternative transportation, green buildings, LFGTE, and recycling programs.
  - Reduce emissions through green power purchasing.
  - Stay abreast of developments in greenhouse gas reporting requirements.



## BUILDINGS AND ENERGY USE

1. Ensure County buildings are as energy and resource efficient as possible.
  2. Create healthy work spaces to improve occupant health and comfort.
  3. Provide maintenance and support for enterprise funds such as Paramedics, Recreation and Event Services, and Solid Waste Management.
  4. Incorporate ENERGY STAR programs into Ada County facilities.
  5. Participate in local utility incentive programs.
- Track monthly consumption and costs of electricity, natural gas, water, sewer, and trash utility bills.
  - Evaluate data and create annual energy reports to document savings.
  - Establish an Energy Use Index for all buildings over 10,000 square feet.
  - Make building operator training available to maintenance staff (Levels I and II).
  - Maintain and update equipment as needed. Recommision buildings as necessary.
  - Manage indoor air quality in all occupied spaces.
  - Conduct low-cost energy audits on all buildings, including after-hours.
  - Evaluate actual lighting needs and choose best lighting solution during renovations.
  - Install/retrofit lighting and HVAC systems with energy efficient options wherever feasible.
  - Install lighting occupancy sensors in select areas.
  - Update HVAC refrigerant when changing out mechanical systems.
  - Benchmark the County's energy usage against other ENERGY STAR facilities.
  - Apply for ENERGY STAR for eligible buildings.
  - Evaluate and incorporate energy conservation measures (ECMs) for all facilities.
  - Apply for utility incentives when applicable.
  - Evaluate ways to reduce peak load in the summer.



Residential House replaced with new Paramedics Station at Star & Linder Roads



## PURCHASING, WASTE MANAGEMENT, AND RECYCLING

1. Implement an EPP (Environmentally Preferable Purchasing) policy throughout the organization.
  3. Support Information Technology's computer purchasing standards.
  2. Promote new or enhanced recycling programs for County-owned facilities.
  4. Support wood recycling program at the landfill.
  5. Develop construction waste recycling program.
  6. Increase on-site recycling opportunities at the landfill.
  7. Assist with project management and expansion of the Landfill Gas to Energy project.
  8. Facilitate Expressions of Interest in Renewable Energy Industrial Park
- Consider efficiency in the cost analysis equation when making purchasing decisions.
  - Purchase products made with recycled material when practical and feasible.
  - Identify and “advertise” the standard setup of PCs for reduced energy usage.
  - Incorporate PC purchasing standards into EPP program.
  - Reuse and recycle PCs.
  - Find ways to Reduce and Reuse.
  - Provide assistance and recycling incentives for all County-owned facilities.
  - Replace paper shredders with shredding service to reduce waste and increase the amount of paper being recycled.
  - Provide recycling assistance and incentives.
  - Assist private industry in developing new markets for mulch and chip products.
  - Provide information about material reuse programs, such as Second Chance, for used building materials.
  - Continue incentives to Contractors who source separate the material.
  - Facilitate recycling of gypsum for County remodeling projects.
  - Provide roll-off bins for self-sorting of recyclable material at the landfill.
  - Construct scales to weigh material at the landfill and help quantify related GHG emissions.
  - Measure and verify LFG quality and volumes derived from the LFG collection system.
  - Ensure all contractual obligations of generator to provide documentation of revenue are met.
  - Participate in EPA's Landfill Methane Outreach Program.
  - Examine new renewable energy proposals for projects at the landfill such as a CHP project using wood chips or recycled tires to generate additional electricity.
  - Expand partnership with Dynamis Energy to develop 7 MW Landfill Waste to Energy project.

## TRANSPORTATION AND FUEL

1. Promote use of alternative transportation for County employees.
  - Provide free bus passes to eligible employees.
  - Provide commuter checks to vanpool riders.
  - Promote May in Motion to stimulate regular ridership among employees.
2. Reduce emissions and fuel consumption from County-owned vehicles.
  - Manage downtown employee parking lots.
  - Manage and track employee alternative transportation incentive programs.
  - Provide information about options for flex fuel and hybrid vehicles.
3. Promote alternative fuels infrastructure and use of biofuels.
  - Increase use of ethanol-blended fuel, 10% minimum.
  - Evaluate using biodiesel fuel, minimum 10% blend.
  - Waste cooking oil from Jail and Expo kitchens is used for making biodiesel.
4. Implement county-wide Environmentally Preferable Purchasing (EPP) policy for vehicles.
  - Participate in the Treasure Valley Clean Cities Coalition.
  - Ensure 50% of new vehicles purchased for the County fleet will be hybrid or flex fuel vehicles.
  - Encourage all elected officials and department heads to adopt EPP vehicle policies.
  - No idling policy adopted by the Solid Waste Management Department at the Hidden Hollow Landfill to reduce fuel usage and emissions.



## COMMUNICATION AND EDUCATION

1. Implement Marketing / PR plan for Ada County's Energy Plans.
  - Promote internally to increase awareness among Ada County employees
  - Promote externally via press releases and articles to increase awareness among Ada County residents.
  - Use Earth Day to promote programs; i.e., information booth, short video, etc.
  - Participate in America Recycles Day in November each year.
  - Use County meetings as an opportunity to promote "green meetings".
  - Use the County website to educate about the Energy Conservation Plan.
  - Update website with information about Operations Department and County facilities.
  - Identify and catalog materials that are already developed.
  - Plan for educational pieces that fit together as an overall package.
  - Meet with other Counties, building owners, maintenance staff, etc to share ideas.
  - Provide tours to county "guests" such as Idaho Association of Cities, NACO, etc.
  - Provide training for maintenance staff through the Treasure Valley Partnership.
  - Foster energy efficiency awareness by building occupants.
  - Meet monthly with other county employees to share ideas.
  - Post new content to the green team web page.
2. Create a Master Plan for an energy-related Education Program
3. Foster Peer Exchange
4. Educate maintenance staff and building occupants on low-cost/no cost energy conservation measures and practices.
5. Grow the Green Team



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